Eruptive melanocytic nevi in HIV infected patients: report of three cases

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Abstract

The abrupt development of multiple melanocytic nevi has been described in association with many conditions, including human immunodeficiency virus infection. We report three cases of eruptive nevi in men with human immunodeficiency virus type 1 infection. One patient developed this phenomenon during the stage of acquired immunodeficiency syndrome. The other two patients had human immunodeficiency virus infection recently diagnosed and presented to our clinic reporting the development of multiple melanocytic nevi after starting highly active antiretroviral treatment, with improvement of their immunity. To our knowledge, this is the first report of eruptive melanocytic nevi as a possible consequence of the immune reconstitution inflammatory syndrome.

Keywords: HIV, immunosuppression, nevus.

Introduction

Eruptive melanocytic nevi have been associated with different conditions, such as blistering diseases, solid organ transplantation, malignancy, human immunodeficiency virus (HIV) infection, and drugs, mostly biologic and nonbiologic immune-suppressants [1]. This phenomenon is best described as the sudden development of numerous melanocytic nevi de novo after a stimulus, such as treatment with a new drug [1]. In this article we describe three cases of eruptive nevi in men with HIV type 1 infection (**Table 1**).

Case Synopsis

Patient 1 presented to our dermatology clinic reporting the development of multiple small melanocytic nevi in the previous six months**.** The patient was diagnosed with HIV infection 25 years before and was receiving highly active antiretroviral treatment (HAART) since then. He was at the stage of acquired immunodeficiency syndrome (AIDS), with a CD4+ lymphocyte count of 180 cells/mm^3 and an undetectable viral load.

Patient 2 was recently diagnosed with HIV and hepatitis B virus co-infection. At the time of diagnosis, he had a CD4+ lymphocyte count of 565 cells/mm^3 and a viral load of 392,100 copies/ml. He started HAART and after three months, his CD4+ lymphocyte count increased to 933 cells/mm^3 and his viral load became undetectable. He was referred to our outpatient clinic because he noticed the development of multiple brown macules, predominantly on his trunk, simultaneously with the improvement in his immunity.

Patient 3 presented to our outpatient clinic with multiple melanocytic nevi on the trunk, limbs, and genitals that appeared in crops. These nevi had developed over a period of one week. Three months earlier the patient had an HIV infection diagnosed, with a CD4+ lymphocyte count of 368 cells/mm^3 and a viral load of 86,443 copies/ml. Eight days before the development of these melanocytic nevi, the patient had started HAART and denied any other new drugs. The CD4 count on the first dermatology visit was

Table 1. *Clinical characteristics of the three patients with HIV type 1 infection.*

	Age	Duration of HIV infection	HAART	Past personal medical history
Patient 1	55	25 years	Atazanavir and association of Abacavir and Lamivudina	Chronic hepatitis, caused by hepatitis C virus infection, successfully treated with pegylated interferon plus ribavirin, three years before
Patient 2	24	6 months	Ritonavir, Raltegravir and association of Elvitegravir, Cobicistate, Emtricitabina and Tenofovir	Irrelevant
Patient 3	41	3 months	Raltegravir and association of Emtricitabine and Tenofovir	Plaque psoriasis, mostly on the scalp and elbows, treated with the topical association of calcipotriol and betamethasone dipropionate, with good response

then 458 cells/mm^3 and the viral load was undetectable.

On physical examination, all patients had multiple macules, ovoid, symmetrical, mostly measuring 3-4mm, of dark brown color, and predominantly distributed over the trunk and the proximal area of the upper limbs (**Figure 1**). Patient 3 also had the described lesions on the genital area. No atypical nevi were observed on clinical examination and dermatoscopy.

All patients were re-evaluated after six months. None of them had evidence of new melanocytic lesions and the previous eruptive nevi remained unchanged.

Case Discussion

The immune system has a central role in limiting the development of melanocytic nevi, as shown by the parallel increase in the utilization of immune-suppressive drugs in recent years and the number of reports of eruptive nevi [1-3]. The exact patho-physiologic processes relating immune-suppression and melanocyte proliferation are unknown, particularly in the presence of HIV infection [3].

The few reports of eruptive melanocytic nevi in patients with HIV infection are associated with AIDS [4, 5]**.** As far as we were able to find in the literature, no other cases have been reported after initiation of HAART. In patients 2 and 3, the nevi appeared with viral suppression and immunity improvement. The eruption of nevi may be a consequence of the immune reconstitution inflammatory syndrome in these patients.

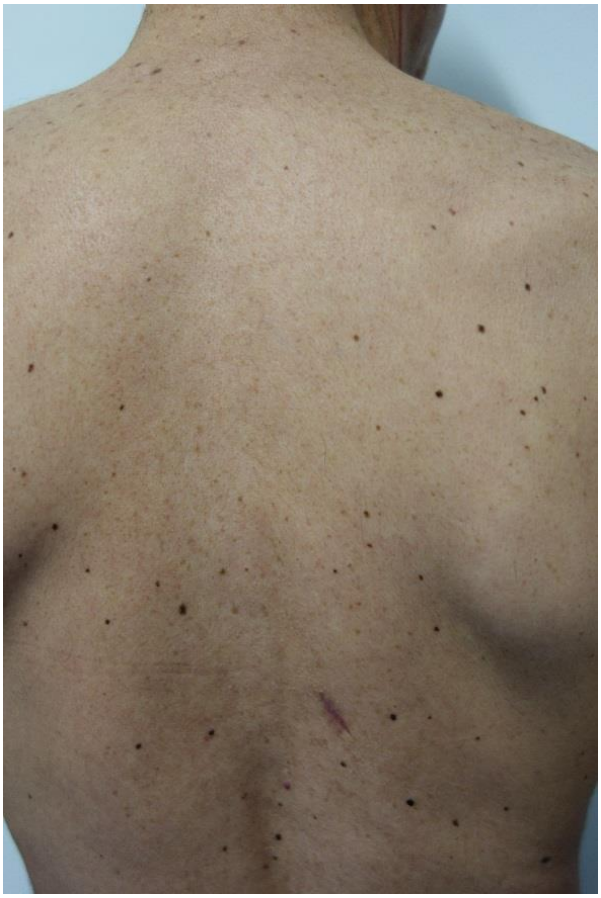

Figure 1. *Multiple, newly arising, 3-4mm, melanocytic nevi on the back of patient 1.*

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